DRAFT

Mr. Doug Demko
S.P. Cramer & Associates, Inc.
386 Brookside Dr.
Chico, CA 95928

Dear Mr. Demko:

I am writing in support of the Stanislaus River Research and Restoration Prioritization project.

The San Joaquin River Management Program provides a forum to identify problems and solutions to issues related to wildlife, flood protection, water quality, water supply, fisheries, and recreation. The SJRMP Action Team and Advisory Council have reviewed and discussed this project, and support the effort to improve the understanding of fish habitat (at-risk species) using a life-history model in the San Joaquin River System.

The Advisory Council is in support of the project proposed by S.P. Cramer & Associates, Inc. and understands that this project will provide information access and processing tools to generate appropriate priorities for ecosystem restoration in the San Joaquin River system.

The 1995 San Joaquin River Management Plan recommends many projects and studies to address issues related to fisheries in the San Joaquin River system. This recommendation is based upon providing valuable information to landowners and interested parties, and increasing their ability to understand the fish habitat in the river system.

If you have any questions in this regard, please call Paula Landis at (559) 230-3310.

Sincerely,

Timothy Ramirez, Chair
San Joaquin River Management Program
Advisory Council

SUPPORTING DOCUMENTATION IS ON THE FOLLOWING PAGES

Stanislaus River Research and Restoration Prioritization

PROJECT DESCRIPTION

This three year project will create information access and processing tools for the Stanislaus River Fish Group (Fish Group), such that roup effectiveness at building consensus toward appropriate priorities for ecosystem restoration is multiplied. The tools to be developed and the technical support provided will help bring synthesis to splintered efforts by various agencies, stakeholders, and consultants in the basin to prioritize, plan and implement projects to address CALFED and AFRP restoration goals.

Fisheries biologists working in or responsible for some portion of the watershed have been meeting as the ad hoc "Stanislaus Fish Group," but have been frustrated by the absence of any members that have funding and responsibility to administer the group or act on the ideas it generates. The Fish Group has substantial expertise and historical knowledge of fisheries investigations in the basin, but has little capacity or incentive to follow through on development of tools for information sharing, consensus building, or technical assistance. As a result, no effort has been made to compile and build on the insights gained, and information sharing must often be repeated. Work of individual biologists lacks collaboration to achieve a shared understanding of limiting factors and restoration opportunities.

This project will improve the understanding of at-risk species (Restoration Priority SJ-4) by providing a review panel and steering committee (Stanislaus Fish Group) for ongoing and proposed projects. Efforts are needed to improve standardization among researchers of monitoring techniques, data compilation and analysis, and reporting (Strategic Goal 1, At Risk Species Assessments). The Stanislaus Fish Group, aided by a Program Facilitator, will fill the role of steering committee. The Program Facilitator will assemble notes, data, and relevant information for the Fish Group to be used on specific topics for which review and guidance is requested. Without this advance preparation of materials in a readily digestible format, and the encouragement of a lead scientist, the Fish Group has been unable to serve as a coordinated steering committee during its several years of existence. However, members of the group have consistently expressed a desire to fulfill and make use of this role.

Task 1.1 Compile available life-history information for rainbow trout and chinook salmon in the Stanislaus River Basin.

This task will improve the understanding of at-risk species (Restoration Priority SJ-4) by assembling and cataloging a library of salmonid life history studies in the Stanislaus and lower San Joaquin rivers. Information on fish and aquatic resources in the Stanislaus Basin is widely scattered among agencies and individuals. Consequently, existing information and analyses go unused and workers in the basin often reinvent the wheel, rather than building new information on the foundation of what is already known. The topics of focus for our information search will be on fish associations with habitat at each life stage, especially as they relate to habitat features modified by restoration projects. Emphasis

would be placed on at risk species of fish. Both the oldest and newest studies would be included, including difficult-to-find or little-known office reports, key memorandums, and white papers. This task would build upon work already completed and funded by SSJID, OID, Tri-Dam, SEWD, and CalFed. An internet search engine will be provided for the library that enables users to search by topic, location, author or title to find information on their topic of interest.

Task 1.2 Use information compiled under Task 1.1 to develop conceptual framework and salmonid life-history model to identify and prioritize basin research and restoration actions.

This task will improve the understanding of at-risk species (Restoration Priority SJ-4) by facilitating the development of an analytical framework that will serves as a hub for organizing analyses and data relevant to the basin. The framework will be developed through iterative discussion with the Fish Group, and will take the form of a life-history model for rainbow trout, steelhead and chinook salmon that can processes and display inputs from analyses of fish, water, stream morphology, and watershed processes. This base model centered on key salmonids will serve as the foundation for linking models of habitat quality and ecosystem processes, as they are developed. For example, the models that Fish Group members have developed to forecast stream temperatures or flows could be plugged in to the fish life history framework to guide assessment of how actions affecting temperature or flow are ultimately likely to affect fish. The life history model will not be intended for forecasting, but rather as a tool for developing a shared understanding of salmonid life histories, identifying information gaps, and evaluating the relative value of proposed actions. The model will provide a detailed accounting of the times, locations and variables for which information are needed. The sensitivity of the model output to assumptions about life history and factors affecting the populations will be used to provide resource managers with a basis for prioritizing studies and restoration activities in the basin.

The model will be designed to allow future incorporation of submodels for ecosystem processes that influence fish habitat. Model components and parameters will be envisioned, reviewed, and adopted by the Fish Group through an iterative, facilitated process. Model development would proceed through at least three phases of group review and discussion: (1) conceptualization of life history components, (2) parameterization of the conceptual model, and (3) review of simulation output for "what-if" scenarios. In this way, fish biologists in the basin can work toward consensus guidance to a Biometrician who programs the model and reports progress to the Group. The AFMP will also seek input from stakeholders, landowners, recreational groups, and the general public. A series of public outreach workshops will be held to describe the conceptual model approach and allow stakeholders to review the process and provide input. The final conceptual model and hypotheses will be developed after the public workshops are completed.